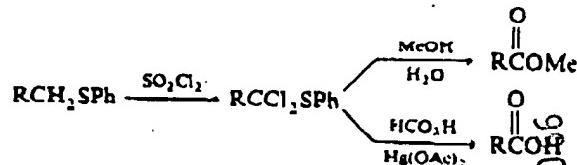


R = H, SiMe<sub>3</sub>,

n = 3-5

TL 4013 (1977)  
JACS 107 4230 (1985)

## 10. Sulfides



CC 857 (1982)

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## 11. Alcohols

For alcohol → ester see also page 963, Section 9.  
For alkenol → lactone see page 941, Section 8.

$\text{RCH}_2\text{OH} \longrightarrow \text{RCO}_2\text{H}$	
$\text{CrO}_3, \text{HOAc}$	JACS 78 2255 (1956)
$\text{CrO}_3, \text{H}_2\text{SO}_4$	JOC 48 4404 (1983)
$\text{K}_2\text{Cr}_2\text{O}_7, \text{H}_2\text{SO}_4$	JACS 82 2498 (1960)
$(\text{C}_6\text{H}_5\text{NH})_2\text{Cr}_2\text{O}_7$ (PDC), DMF (non-allylic)	TL 399 (1979); 38 5311, 6069 (1987) JACS 104 1774 (1982); 109 5437 (1987) JOC 50 2607 (1985) CL 85 (1986)
$\text{KMnO}_4$	JCS 633 (1939); 2685 (1950) BCSJ 36 1264 (1963) TL 28 5263 (1987)
$\text{KMnO}_4$ (phase transfer)	TL 1511 (1974) JACS 109 7280 (1987)
$\text{NaMnO}_4 \cdot \text{H}_2\text{O}$	TL 22 1655 (1981)
$(n\text{-Bu}_4\text{N})\text{MnO}_4$ , py (benzyllic)	CC 253 (1978)
$\text{Zn}(\text{MnO}_4)_2 \cdot 6 \text{H}_2\text{O}$	J Biol Chem 241 3970 (1966) JOC 50 5480 (1985)
$\text{Cu}(\text{MnO}_4)_2 \cdot 8 \text{H}_2\text{O}$	JOC 47 2790 (1982)
$\text{NaIO}_4$ , cat $\text{RuCl}_3 \cdot \text{H}_2\text{O}$ , $\text{H}_2\text{O}$ , $\text{CH}_3\text{CN}$ , $\text{CCl}_4$	JOC 46 3936 (1981); 50 5696 (1985)

$\text{NaIO}_4$ , cat $\text{RuO}_2$ , $\text{H}_2\text{O}$ , $\text{CH}_3\text{CN}$ , $\text{CCl}_4$	TL 28 6425 (1987)
$\text{H}_5\text{IO}_6$ , cat $\text{RuCl}_3 \cdot \text{H}_2\text{O}$ , $\text{H}_2\text{O}$ , $\text{CH}_3\text{CN}$ , $\text{CCl}_4$	JOC 50 1560 (1985)
$\text{RuCl}_3$ , $\text{K}_2\text{S}_2\text{O}_8$	TL 28 4965 (1987)
$\text{RuO}_4$	JACS 80 6682 (1958)
cat $\text{K}_2\text{Ru}_2\text{O}_4$ , $\text{K}_2\text{SO}_4$	CC 58 (1979)
cat $\text{RuO}_2 \cdot 2 \text{H}_2\text{O}$ , electrolysis	JOC 51 155 (1986)
nickel peroxide, $\text{NaOH}$	JOC 27 1597 (1962)
$\text{O}_2$ , cat $\text{PtO}_2$	Ber 89 1648 (1956) Teir 9 67 (1960) JOC 52 4898 (1987)
$\text{AgO}$	TL 5685 (1968)
$\text{HNO}_3$	Org Syn Coll Vol 1 168 (1941)
$\text{H}_2\text{O}_2$	"Hydrogen Peroxide in Organic Chemistry," DuPont (1962), p 57
$\text{NaOCl}$ , cat $\text{MeO}-\text{C}_6\text{H}_4-\text{NO}_2$	JOC 52 2559 (1987)
KBr, Aliquat 336	
electrolysis [ $\text{Ni}(\text{OH})_2$ anode]	Syn 513 (1979) Tetrahedron 38 3299 (1982)
<i>Pseudomonas aeruginosa</i> (R = allene, enantioselective)	TL 27 1711 (1980) Appl Microbiol Biotechnol 27 258 (1985)

$\text{HNO}_3$	 $\text{Cyclohexanol} \longrightarrow \text{HO}_2\text{C}(\text{CH}_2)_4\text{CO}_2\text{H}$
$\text{KMnO}_4$	Rec Trav Chim 24 19 (1905) JACS 52 3235 (1930) Org Syn Coll Vol 1 18 (1941) Ber 41 575 (1908), 55B 3526 (1922) J Chem Ed 10 113 (1933)
$\text{Ca(OCl)}_2$	TL 23 35 (1982)
KI, $\text{H}_2\text{O}_2$ , electrolysis	TL 165 (1979)
$\text{Na}_2\text{Cr}_2\text{O}_7$ , $\text{H}_2\text{SO}_4$	Org Syn Coll Vol 1 138 (1941)
$t\text{-BuO}_2\text{H}$ , cat $(\text{PhCH}_2\text{NMMe}_2)\text{OMoBr}_4$	TL 25 4417 (1984)
cat $\text{H}_2\text{Ru}(\text{PPh}_3)_4$	TL 22 5327 (1981) JOC 52 4319 (1987)